

PATEN
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Continuation of Serial No. 08/935,207

Applicants : NOBUYUKI TAKASU, et al.

Filed : Herewith

For : EDITING APPARATUS AND DATA EDITING METHOD

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Charles S. Jackson
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mailing paper or fee)

Charles S. Jackson
(Signature of person mailing paper or fee)

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Sir:

Before the issuance of the first Official Action,
please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 1, before line 1, insert --This is a continuation
of copending Application Serial No. 08/935,207, filed September
22, 1997.--

Please delete the paragraph at page 19, lines 12-18,
and substitute the following therefor:

--Next, a processing between the control unit 16 and the decoding unit 17 will be explained using the flowchart shown in Fig. 6. The control unit 16 receives a notification of completion of the multiplexing processing from the multiplexing unit 15 to terminate the processing shown in Fig. 5, and then proceeds to the processing shown in Fig. 6 with the decoding unit 17 to enter the detecting process.--

Please delete the paragraph at page 22, line 14 - page 23, line 13, and substitute the following therefor:

--In addition, the authoring apparatus 1 shown in Fig. 1 comprises storage units 2B to 5B in respective units (2 to 5). Thereby, for example, when a processing proceeds to the next multiplexing processing after the encoding processing, the encoded data S1 to S3 must be transmitted from the storage units 2B to 4B to the storage unit 5B, and next encoding work cannot be performed at the encoder 2A, 3A, 4A until the transmitting processing is terminated. Therefore, the editing work takes much time as a whole in the authoring apparatus 1. However, the authoring apparatus 10 according to this embodiment adopts the storage unit 14 which is commonly used by all of units, so that the data transfer is not performed. In the authoring apparatus 10, the enough recording area of the storage unit 14 is previously secured, and respective encoding units 11 to 13 can

proceed to another encoding processing after the encoding processing without waiting the work of multiplexing unit 15. The work is not interrupted. Similarly, the multiplexing unit 15 also can proceed to another multiplexing processing without waiting the work of detecting processing of the decoding unit 17, and the work is not interrupted. In this way, in the case of the authoring apparatus 10, the storage unit 14 is commonly used between respective units, so that each of units can operate independently. Thereby, the interruption of work can be prevented to reduce the working time as a whole, so as to improve the working efficiency comparing to the conventional apparatus.--

IN THE CLAIMS:

Applicants have requested amendment to claims 1-4 and 7, a copy of each of these claims being presented herein. A marked-up version of these claims indicating insertions and deletions is included as an attachment to this amendment.

1. (Amended) An editing apparatus for encoding a plurality of images or sounds and multiplexing plural encoded data so as to produce recording data which is recorded in a recording medium, said editing apparatus comprising:

single storage means having a plurality of input ports and at least one output port, control of said single storage means residing in a single control means;

proceed to another encoding processing after the encoding processing without waiting the work of multiplexing unit 15. The work is not interrupted. Similarly, the multiplexing unit 15 also can proceed to another multiplexing processing without waiting the work of detecting processing of the decoding unit 17, and the work is not interrupted. In this way, in the case of the authoring apparatus 10, the storage unit 14 is commonly used between respective units, so that each of units can operate independently. Thereby, the interruption of work can be prevented to reduce the working time as a whole, so as to improve the working efficiency comparing to the conventional apparatus.--

IN THE CLAIMS:

Applicants have requested amendment to claims 1-4 and 7, a copy of each of these claims being presented herein. A marked-up version of these claims indicating insertions and deletions is included as an attachment to this amendment.

1. (Amended) An editing apparatus for encoding a plurality of images or sounds and multiplexing plural encoded data so as to produce recording data which is recorded in a recording medium, said editing apparatus comprising:

single storage means having a plurality of input ports and at least one output port, control of said single storage means residing in a single control means;

a plurality of encoding means for encoding inputted images or sounds, and for storing encoded data in a predetermined

recording area of said storage means through said input ports;
and

multiplexing means for reading said encoded data to be multiplexed from said storage means through said output port so as to produce the multiplexed data, and for storing the multiplexed data in a predetermined recording area of said storage means through one of said input ports as said recording data;

wherein said controls means controls the allocation of the recording area of said storing means, wherein a different recording area is assigned to each of said plurality of encoding means for storing encoded data encoded thereby, the locations of said assigned different recording areas in which said encoded data has been stored are given to said multiplexing means, and a recording area which is different from that assigned to store said encoded data is assigned to said multiplexing means as an area where said multiplexed data is stored, wherein said encoding, multiplexing, storing and reading may be performed without transferring data via another control means.

2. (Amended) The editing apparatus according to claim 1, wherein

said control means outputs information necessary for encoding processing to each of said plurality of encoding means, so as to instruct the encoding means to start the encoding processing.

3. (Amended) The editing apparatus according to claim 1, wherein

said control means gives each of said plurality of encoding means the address information of said recording area for storing the encoded data, when said encoding means requests an area where the encoded data will be stored.

4. (Amended) The editing apparatus according to claim 1, wherein

when said control means receives information that each of said plurality of encoding means has completed the encoding processing, the control means gives said multiplexing means the address information of the recording area in which said encoded data has been stored and the address information of said recording area in which said multiplexed data is stored, so as to instruct the multiplexing means to start the multiplexing processing.

7. (Amended) A data editing method for encoding a plurality of images or sounds and multiplexing the plural encoded data so as to produce recording data which is recorded in a recording medium, said data editing method comprising the steps of:

respectively encoding a plurality of inputted images or sounds and respectively storing the encoded data in different recording areas of a single storage means, control of said single storage means residing in a single control means; and

reading said encoded data from said different recording areas of said single storage means to be multiplexed so as to produce the multiplexed data, and storing the multiplexed data as said recording data in an additional recording area of said single storage means, also under the control of said single control means, which is different from said recording areas of said single storage means storing said encoded data.

IN THE DRAWINGS:

Please amend Figs. 1, 4 and 6 as set forth in the accompanying Request for Approval of Drawing Changes.

REMARKS

This preliminary amendment places this application in condition similar to that of the parent application. No new matter is added. Entry of the above amendatory matter and early examination on the merits are respectfully requested.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicants

GORDON KESSLER #38511

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for: William S. Frommer
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ATTACHMENT
MARKED-UP CLAIMS

1. (Amended) An editing apparatus for encoding a plurality of images or sounds and multiplexing [the] plural encoded data so as to produce recording data which is recorded in a recording medium, said editing apparatus comprising:

single storage means having a plurality of input ports and at least one output port, control of said single storage means residing in a single control means;

a plurality of encoding means for encoding inputted images or sounds, and for storing [the] encoded data in a predetermined recording area of said storage means through said input ports; and

multiplexing means for reading said encoded data to be multiplexed from said storage means through said output port [to be multiplexed] so as to produce the multiplexed data, and for storing the multiplexed data in a predetermined recording area of said storage means through one of said input ports as said recording data; [and]

wherein said controls means [for controlling] controls the allocation of the recording area of said storing means, wherein a different recording area is assigned [as an area where said encoded data is stored,] to each of said plurality of encoding means for storing encoded data encoded thereby, the locations of said assigned different recording areas in which

said encoded data has been stored [is assigned] are given to said multiplexing means, and a recording area which is different from that [of] assigned to store said encoded data is assigned to said multiplexing means [,] as an area where said multiplexed data is stored, wherein said encoding, multiplexing, storing and reading may be performed without transferring data via another control means [, to said multiplexing means].

2. (Amended) The editing apparatus according to claim 1, wherein

said control means outputs information necessary for encoding processing to each of said plurality of encoding means, so as to instruct the encoding means to start the encoding processing.

3. (Amended) The editing apparatus according to claim 1, wherein

said control means gives each of said plurality of encoding means the address information of said recording area for storing the encoded data, when said encoding means requests an area where the encoded data will be stored.

4. (Amended) The editing apparatus according to claim 1, wherein

when said control means receives information that [all] each of said plurality of encoding means [have] has completed the encoding processing, the control means gives said multiplexing means the address information of the recording area in which said

encoded data has been stored and the address information of said recording area in which said multiplexed data is stored, so as to instruct the multiplexing means to start the multiplexing processing.

7. (Amended) A data editing method for encoding a plurality of images or sounds and multiplexing the plural encoded data so as to produce recording data which is recorded in a recording medium, said data editing method comprising the steps of:

respectively encoding a plurality of inputted images or sounds and respectively storing the encoded data in different recording areas of a single storage means, control of said single storage means residing in a single control means; and

reading said encoded data from said different recording areas of said single storage means to be multiplexed so as to produce the multiplexed data, and storing the multiplexed data as said recording data in [a] an additional recording are of said single storage means, also under the control of said single control means, which is different from [that of] said recording areas of said single storage means storing said encoded data.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Noboyuki TAKASU et al.

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Serial No. : 08/935,207

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METHOD

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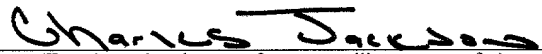
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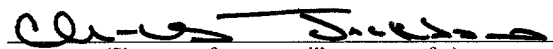
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REQUEST FOR APPROVAL OF DRAWINGS CHANGES

Assistant Commissioner for Patents
Washington, D.C. 20231

Attention: Official Draftsperson

Sir:

Please amend Figs. 1, 4 and 6 as follows.

Fig 1, please add the legend --PRIOR ART--.

Fig. 4, box SP57 please change "COMPETION" to --COMPLETION--.

Fig. 6, box SP 71, please change "DETEDTION" to --DETECTION--.

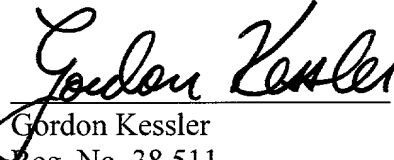
REMARKS

Entry of the above-noted amendments to the drawings is respectfully requested.

Applicants have requested amendment to Fig. 1 as suggested by the Examiner in order to label Fig. 1 as prior art. This amendment conforms Fig. 1 to the specification as originally filed. Applicants have also requested amendment to Figs. 4 and 6 to correct typographical errors contained within each figure. Applicants submit that these amendments to the drawings conform the drawings to the specification and correct typographical errors, and therefore present no new matter. Entry of these amendments in this file are respectfully requested.

Respectfully submitted,
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